

REMARKS**Summary of the Office Action**

Claims 1 and 8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Applicants Admitted Prior Art (hereinafter "APA") in view of U.S. Patent No. 6,870,542 to Toksvig et al. (hereinafter "Toksvig").

Claims 2 and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over APA and Toksvig in view of U.S. Patent No. 5,896,140 to O'Sullivan (hereinafter "O'Sullivan").

Claims 3, 4, 10 and 11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over APA in view of Toksvig further in view of U.S. Patent No. 5,060,059 to Mori (hereinafter "Mori").

Claims 5-7 and 12-14, while objected to as being dependent upon a rejected base claim, would be allowable if rewritten in independent form.

Summary of the Response to the Office Action

Applicant has amended claims 1, 3, 8 and 10 to differently describe embodiments of the disclosure of the instant application. Accordingly, claims 1-14 remain pending and under consideration.

Rejections under 35 U.S.C. § 103(a)

Claims 1 and 8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over APA in view of Toksvig. Claims 2 and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over APA and Toksvig in view of O'Sullivan. Claims 3, 4, 10 and 11 stand

rejected under 35 U.S.C. § 103(a) as being unpatentable over APA in view of Toksvig further in view of Mori. Applicant has amended claims 1, 3, 8 and 10 to differently describe embodiments of the disclosure of the instant application. To the extent that these rejections might be deemed to apply to the claims as newly-amended, they are respectfully traversed for at least the following reasons.

Independent claim 1 of the instant application has been amended to describe a digital image processing device for signal-processing a video input signal and supplying a video output signal to a display panel, that includes a combination of features including a signal processing unit to process the video input signal, a frame memory to store the processed video input signal from the signal processing unit, and a driver including a redundant pixel embedding circuit to embed data as redundant pixels into an image line read from the frame memory so as to produce the video output signal, the data corresponding to portions of the video input signal irrespective of a data value of said portions.

In other words, Applicant respectfully submits that the digital image processing device according to embodiments of the disclosure of the instant application enables the embedding of dummy data into frame memory output data by utilizing dummy data that corresponds to portions of the video input signal regardless of the value of the dummy data.

Applicant notes that such advantageous arrangements of a digital image processing device, as described in the instant application, results in the ability to comply with the specific requirements of various types of drivers without utilizing a large amount of frame memory and also without needing to increase the capacity of a memory.

On the other hand, Applicant respectfully submits that the newly-applied Toksvig reference discloses a graphics processing system for filtering graphics data that is read from a memory. Applicant notes that it is apparent that Toksvig merely discloses a technique for determining an appropriate color value for each pixel as an output from a filter by utilizing both current sampled data values as well as previously sampled data values. It does not involve a random arrangement that makes a selection “irrespective of data values of said portions” as discussed in newly-amended independent claim 1 of the instant application.

As a result, Applicant respectfully submits that Toksvig is directed to providing a graphics processing system that filters oversampled data without requiring additional memory or memory access operation. However, the effect of Toksvig’s disclosure does not avoid an increase in an amount of data that is stored in the frame memory in the manner that results from the advantageous features of embodiments of the instant application’s disclosure, as discussed previously.

Accordingly, Toksvig includes no teaching, or even a suggestion, that its digital image processing device can be applied to any type of driver employed in the display panel without utilizing a large amount of a frame memory, and without increasing a capacity of a memory, by embedding data corresponding to portions of the video input signal “irrespective of data values of said portions” into the image line read from the frame memory, in the manner discussed above with regard to embodiments of the disclosure of the instant application.

These claimed features, as described in newly-amended independent claim 1, which are neither shown nor suggested by ABA, Toksvig, or the other art of record, whether taken separately or in combination with each other, thus provide specific advantages in a manner that is

neither shown nor suggested by the applied art. For example, the digital image processing device according to embodiments of the disclosure of the instant application, as described, for example, in newly-amended independent claim 1, is capable of complying with various types of drivers without using a large amount of frame memory and without increasing memory capacity.

The remaining independent claims 3, 8 and 10 have been amended to include similar features in this regard and, as a result, similar arguments as discussed above with regard to newly-amended independent claim 1 also apply to the remaining independent claims.

Accordingly, Applicant respectfully asserts that the rejections under 35 U.S.C. § 103(a) should be withdrawn because none of the applied art, whether taken singly or combined, teach or suggest each feature of independent claims 1, 3, 8, and 10, as newly-amended. MPEP § 2143.03 instructs that “[t]o establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 409 F.2d 981, 180 USPQ 580 (CCPA 1974).” Furthermore, Applicant respectfully asserts that the dependent claims are allowable at least because of their dependence from claims 1, 3, 8 or 10, and the reasons set forth above.

The additionally applied reference to O’Sullivan, with regard to dependent claims 2 and 9, and the additionally applied reference to Mori, with regard to claims 3, 4, 10 and 11 do not cure the deficiencies of the art discussed above.

The Examiner is thanked for the indication that claims 5-7 and 12-14, while objected to as being dependent upon a rejected base claim, would be allowable if rewritten in independent form. Applicant respectfully submits that these claims are also allowable at least because of their

dependence from claims 3 or 10, and the reasons set forth above. Accordingly, withdrawal of the objections to these claims is respectfully requested.

Applicant respectfully submits that all pending claims (*i.e.* claims 1-14) are in condition for allowance.

CONCLUSION


In view of the foregoing, Applicant respectfully requests the entry of the Amendments to place the application in clear condition for allowance or, in the alternative, in better form for appeal. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicant's undersigned representative to expedite prosecution. A favorable action is awaited.

EXCEPT for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. § 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0573. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,

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Dated: April 5, 2006

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